

***LineUp with Math™* Alignment**
Core Curriculum Content Standards for
Mathematics

STANDARD 4.5 MATHEMATICAL PROCESSES

All students will use mathematical processes of problem solving, communication, connections, reasoning, representations, and technology to solve problems and communicate mathematical ideas.

Strand 4.5 A. Problem Solving

Cumulative Progress Indicators

2. Solve problems that arise in mathematics and in other contexts.
- Open-ended problems
 - Non-routine problems
 - Problems with multiple solutions
 - Problems that can be solved in several ways

***LineUp with Math™* Activities**

- Apply mathematics to solving distance, rate, and time problems for aircraft conflict scenarios.
- Use an interactive simulator plus calculation worksheets to model and resolve air traffic control conflicts.
- Choose and apply a variety of strategies to optimize the solution of air traffic control conflicts.

3. Select and apply a variety of appropriate problem-solving strategies (e.g., “try a simpler problem” or “make a diagram”) to solve problems.

- Use an interactive simulator plus calculation worksheets to model and resolve air traffic control conflicts.
- Choose and apply a variety of strategies to optimize the solution of air traffic control conflicts.

Strand 4.5 B. Communication

Cumulative Progress Indicators

2. Communicate mathematical thinking coherently and clearly to peers, teachers, and others, both orally and in writing.

***LineUp with Math™* Activities**

- Predict and resolve aircraft conflicts and explain results of mathematical calculations and simulations.

4. Use the language of mathematics to express mathematical ideas precisely.

- Apply mathematics to solving distance, rate, and time problems for aircraft conflict scenarios.
- Predict and resolve aircraft conflicts and explain results of mathematical calculations and simulations.

Strand 4.5 C. Connections

Cumulative Progress Indicators

3. Recognize that mathematics is used in a variety of contexts outside of mathematics.

***LineUp with Math™* Activities**

- Apply mathematics to solving distance, rate, and time problems for aircraft conflict scenarios.

4. Apply mathematics in practical situations and in other disciplines.

- Apply mathematics to solving distance, rate, and time problems for aircraft conflict scenarios.

Strand 4.5 E. Representations	
Cumulative Progress Indicators 3. Use representations to model and interpret physical, social, and mathematical phenomena.	<i>LineUp with Math™</i> Activities --Use an interactive simulator plus calculation worksheets to model and resolve air traffic control conflicts.
Strand 4.5 F. Technology	
Cumulative Progress Indicators 1. Use technology to gather, analyze, and communicate mathematical information.	<i>LineUp with Math™</i> Activities --Use an interactive simulator plus calculation worksheets to model and resolve air traffic control conflicts.